

American Cascade Pale Ale

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **42**
- SRM **7.7**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.4 liter(s) / kg**
- Mash size **14.6 liter(s)**
- Total mash volume **18.9 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **14.6 liter(s)** of strike water to **75.1C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (46.5%) | 80 % | 5 |
| Grain | Strzegom Wiedeński | 1 kg (23.3%) | 79 % | 10 |
| Grain | Monachijski | 1 kg (23.3%) | 80 % | 16 |
| Grain | Strzegom Karmel 150 | 0.3 kg (7%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Cascade | 40 g | 60 min | 6 % |
| Boil | Cascade | 10 g | 30 min | 6 % |
| Boil | Cascade | 10 g | 15 min | 6 % |
| Boil | Cascade | 25 g | 10 min | 6 % |
| Boil | Cascade | 10 g | 5 min | 6 % |
| Aroma (end of boil) | Cascade | 10 g | 1 min | 6 % |
| Dry Hop | Cascade | 25 g | 5 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

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|--------------------------------------|-----|-----|------|-----------------|
| Mangrove Jack's M44 US West Coast | Ale | Dry | 10 g | Mangrove Jack's |
|--------------------------------------|-----|-----|------|-----------------|